

ABSTRACT OF THE DISCLOSURE

Stochastic control problems of linear systems in high dimensions are solved by modeling a structured Markov Decision Process (MDP). A state space for the MDP is a polyhedron in a Euclidean space and one or more actions that are feasible in a state of the state space are linearly constrained with respect to the state. One or more approximations are built from above and from below to a value function for the state using representations that facilitate the computation of approximately optimal actions at any given state by linear programming.

EL540750111115
"Express Mail" mailing label number
Date of Deposit JUNE 28, 2020
I hereby certify that this paper or form is being deposited with the United States Postal Service "Express Mail" service under \$7.00 to \$1.10 in the date indicated above and is addressed to:
Assistant Commissioner for Patents, Washington, D.C. 20231.
DAVE McCLELLAN
(Printed name)
[Signature]
(Signature)